

PROJECT DESCRIPTION

GENERAL

THIS PORTION OF THE PROJECT INVOLVES THE MODIFICATION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF US 301 (CRAIN HIGHWAY) AT POINTER RIDGE DRIVE IN PRINCE GEORGE'S COUNTY. GEOMETRIC MODIFICATIONS ARE PROPOSED TO PROVIDE AN ADDITIONAL LANE IN THE EASTBOUND DIRECTION AS WELL AS ADDITIONAL STORAGE BETWEEN THE NORTH- AND SOUTHBOUND LANES. VIDEO DETECTION IS PROPOSED FOR ALL PRESENCE DETECTION AND NON-INVASIVE MICROLOOP PROBES ARE ALSO PROPOSED FOR SETBACK DETECTION ALONG US 301. ALL EXISTING TRAFFIC SIGNAL HEADS WILL BE UPGRADED TO LED. US 301 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL CONTINUE TO OPERATE IN A NEMA FOUR-PHASE, FULL-TRAFFIC ACTUATED MODE. PERMISSIVE LEFT-TURN PHASING WILL BE MAINTAINED ON US 301. THE EXISTING PERMISSIVE LEFT-TURN PHASING ALONG THE SIDE STREET WILL ALSO BE MAINTAINED.

CONTROLLER REQUIREMENTS

INSTALL A NEW EIGHT-PHASE FULLY ACTUATED TRAFFIC SIGNAL CONTROLLER AND ASSOCIATED HARNESSSES IN A NEMA SIZE '6' BASE MOUNTED CABINET. INSTALL A 2-WIRE CENTRAL CONTROL UNIT AND VIDEO DETECTION CAMERA INTERFACE FOR 1-4 CAMERAS.

THE EXISTING POLE-MOUNTED CABINET LOCATED AT THE NORTHBOUND HIB WILL ALSO REMAIN.

PHONE DROP

THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT (410) 787-7635 TO ARRANGE FOR THE INSTALLATION OF THE PHONE DROP. THE CONTRACTOR IS TO PROVIDE MR. SNYDER WITH THE NEAREST STREET ADDRESS, ZIP CODE AND PHONE NUMBER.

THE CONTACT PERSONS FOR DISTRICT #3/00TS ARE AS FOLLOWS:

District #3

Mr. Brian Young
Assistant District Engineer - Traffic
Phone: 301-513-7358

Mr. Augie Roblish
District Utility Engineer
Phone: 301-513-7350

Mr. Wayne Mowdy
Assistant District Engineer - Maintenance
Phone: 301-513-7304

Mr. Kevin Nowak
Assistant District Engineer - Construction
Phone: 301-513-7336

Office of Traffic & Safety

Mr. Richard L. Daff Sr.
Chief, Traffic Operations Division
Phone: 410-787-7630

Mr. Robert Snyder
Assistant Division Chief, Traffic Operations
Phone: 410-787-7630

Mr. Edward Rodenhizer
Chief, SHA Traffic Signal Shop
Phone: 410-787-7650

Mr. Eugene Bailey
Team Leader Sign Operation
410-787-7670

The Power Company Representative is:
Baltimore Gas and Electric
7317 Parkway Drive South
Hanover, MD 21076
Phone: 410-859-9062

EQUIPMENT LIST 'A'

EQUIPMENT TO BE SUPPLIED BY THE SHA

CAT CODE QUANTITY DESCRIPTION

NONE

EQUIPMENT LIST 'B'

APPROVED SHA EQUIPMENT TO BE PURCHASED BY THE DEVELOPER AND INSTALLED BY THE CONTRACTOR. ALL EQUIPMENT IN THIS LIST SHALL HAVE CATALOG CUTS SUBMITTED FOR APPROVAL PRIOR TO INSTALLATION.

CAT CODE QUANTITY DESCRIPTION

800000 1 EA

FURNISH AND INSTALL EIGHT-PHASE FULLY-ACTUATED CONTROLLER HOUSED IN A NEMA SIZE '6' BASE MOUNTED CABINET WITH ALL NECESSARY HARNESSSES

800000 36 EA

LED VEHICULAR SIGNAL HEAD MODULE

800000 1 EA

VIDEO DETECTION CAMERA INTERFACE (1-4 CAMERAS)

800000 24 SF

FURNISH AND INSTALL SHEET ALUMINUM SIGNS - MAST ARM/GROUND MOUNT

1 EA - R3-5L (30"x36")

1 EA - R3-5R (30"x36")

1 EA - R3-6L (30"x36")

807202 1 EA

METERED SERVICE PEDESTAL

810605 4 EA

NON-INVASIVE MICROLOOP PROBE, 1000 FOOT LEAD-IN CABLE

816001 4 EA

VIDEO DETECTION CAMERA

816005 1 EA

CONTROL CABLE, 250 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER

816010 3 EA

CONTROL CABLE, 500 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER

EQUIPMENT LIST 'B' (CONTINUED)

APPROVED SHA EQUIPMENT TO BE PURCHASED BY THE DEVELOPER AND INSTALLED BY THE CONTRACTOR. ALL EQUIPMENT IN THIS LIST SHALL HAVE CATALOG CUTS SUBMITTED FOR APPROVAL PRIOR TO INSTALLATION.

CAT CODE QUANTITY DESCRIPTION

822002 2000 LF

12 PAIR COMMUNICATION CABLE, JELLY FILLED (UNDERGROUND)

831010 3 EA

250 WATT HPS LAMP AND LUMINAIRE

860284 2 EA

12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION

866104 3 EA

20 FOOT LIGHTING ARM ON TRAFFIC SIGNAL STRUCTURE

EQUIPMENT LIST 'C'

EQUIPMENT TO BE PURCHASED BY THE DEVELOPER AND INSTALLED BY THE CONTRACTOR. ALL EQUIPMENT IN THIS LIST SHALL HAVE CATALOG CUTS SUBMITTED FOR APPROVAL PRIOR TO INSTALLATION.

CAT CODE QUANTITY DESCRIPTION

120500 1 LS

MAINTENANCE OF TRAFFIC

585424 80 LF

24 INCH WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS

800000 1 LS

REMOVE AND DISPOSE OF TRAFFIC SIGNAL EQUIPMENT

800000 1 EA

4 INCH CONDUIT BEND IN EXISTING FOUNDATION

802501 1000 LF

NO. 6 AWG STRANDED BARE COPPER GROUND WIRE

805118 400 LF

4 INCH SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - BORED

805125 70 LF

2 INCH SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED

805135 70 LF

3 INCH SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED

805140 350 LF

4 INCH SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED

805150 210 LF

3 INCH SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - SLOTTED

805155 90 LF

4 INCH SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - SLOTTED

811011 13 EA

ELECTRICAL HANDHOLE

813006 9 SF

RELOCATE SIGNS FROM EXISTING OVERHEAD STRUCTURE

822500 1 EA

AS BUILT FOR SHA ON CADD

832017 25 LF

1 CONDUCTOR, NO. 4 AWG, TYPE USE, 600V

837001 3 EA

GROUND ROD - 3/4 INCH DIAMETER BY 10 FOOT LENGTH

861105 900 LF

ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)

861107 300 LF

ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)

861108 2100 LF

ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)

861116 375 LF

ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG), TC

EQUIPMENT LIST 'D'

EQUIPMENT TO BE REMOVED AND RETURNED TO SHA.

CAT CODE QUANTITY DESCRIPTION

800000 1 EA

EIGHT PHASE (FULLY ACTUATED) CONTROLLER AND CABINET - BASE MOUNT

THE CONTRACTOR SHALL CONTACT THE SIGNAL SHOP TO SALVAGE THE EXISTING BASE MOUNTED CABINET AND ALL ASSOCIATED EQUIPMENT.

ALL OTHER REMOVED EQUIPMENT SHALL BECOME THE PROPERTY OF THE CONTRACTOR

WIRING DIAGRAM

